

# UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415

January 12, 2011

Mr. Kevin Bronson Site Vice President Entergy Nuclear Northeast James A. FitzPatrick Nuclear Power Plant P. O. Box 110 Lycoming, NY 13093

SUBJECT:

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - NRC PROBLEM

IDENTIFICATION AND RESOLUTION INSPECTION REPORT

05000333/2010007

Dear Mr. Bronson:

On December 3, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your James A. FitzPatrick Nuclear Power Plant (FitzPatrick). The enclosed report documents the inspection results, which were discussed on December 3, 2010, with you and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

Based on the samples selected for review, the inspection team concluded that Entergy was generally effective in identifying, evaluating and resolving problems. In most instances, FitzPatrick personnel identified problems at a low threshold and entered them into the Corrective Action Program. FitzPatrick staff screened issues appropriately for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. Corrective actions addressed the identified causes and were implemented in a timely manner.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

Mel Gray, Chief Projects Branch 2

Mel Gray

Division of Reactor Projects

Docket No.:

50-333

License No.: DPR-59

Enclosure:

Inspection Report 05000333/2010007

w/Attachment: Supplemental Information

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Sincerely,

#### /RA/

Mel Gray, Chief Projects Branch 2 Division of Reactor Projects

Docket No.: 50-333 License No.: DPR-59

Enclosure:

Inspection Report 05000333/2010003

w/Attachment: Supplemental Information

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# U.S. NUCLEAR REGULATORY COMMISSION REGION I

Docket No.:

50-333

License No.:

**DPR-59** 

Report No.:

05000244/2010007

Licensee:

Entergy Nuclear Northeast (Entergy)

Facility:

James A. FitzPatrick Nuclear Power Plant

Location:

Scriba, New York

Dates:

November 15 through December 3, 2010

Team Leader:

Neil Perry, Senior Project Engineer, Division of Reactor Projects (DRP)

Inspectors:

Javier Brand, Reactor Inspector, Division of Reactor Safety (DRS)

Sherlyn Ibarrola, Reactor Inspector, DRS Sam McCarver, Project Engineer, DRP Ludwig Kern, Reactor Engineer, DRP

Approved by:

Mel Gray, Chief Projects Branch 2

Division of Reactor Projects

#### **SUMMARY OF FINDINGS**

IR 05000333/2010007; 11/15/2010 – 12/3/2010; James A. FitzPatrick Nuclear Power Plant; Biennial Baseline Inspection of Problem Identification and Resolution.

This team inspection was performed by five NRC regional inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, December 2006.

#### Identification and Resolution of Problems

The team concluded that Entergy personnel were generally effective in identifying, evaluating, and resolving problems. In most instances, FitPatrick personnel identified problems at a low threshold and entered them into the Corrective Action Program (CAP). The team determined that FitzPatrick staff screened issues appropriately for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. The team determined that corrective actions addressed the identified causes and were implemented in a timely manner.

Entergy's audits and self-assessments reviewed by the team were thorough and probing. Additionally, the team concluded that Entergy personnel, in general, adequately identified, reviewed, and applied relevant industry operating experience (OE) to FitzPatrick. Based on interviews, observations of plant activities, and reviews of the CAP and the Employee Concerns Program (ECP), the team did not identify concerns with site personnel's willingness to raise safety issues nor did the team identify conditions that indicated a negative impact on the site's safety conscious work environment.

No findings were identified.

#### **REPORT DETAILS**

### 4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (PI&R) (71152B)

.1 Assessment of the Corrective Action Program (CAP) Effectiveness

#### a. <u>Inspection Scope</u>

The team reviewed Entergy's procedures that describe the CAP at the James A. FitzPatrick Nuclear Power Plant (FitzPatrick). Entergy personnel identified problems by initiating condition reports (CRs) for conditions adverse to quality, plant equipment deficiencies, industrial or radiological safety concerns, and other significant issues. Condition reports were subsequently screened for operability and reportability, categorized by significance level (A, most significant, through D, least significant), and assigned to personnel for evaluation and resolution or trending.

The team evaluated the process for assigning and tracking issues to ensure that issues were screened for operability and reportability, prioritized for evaluation and resolution in a timely manner commensurate with their safety significance, and tracked to identify adverse trends and repetitive issues. In addition, the team interviewed plant staff and management to determine their understanding of, and involvement with, the CAP.

The team reviewed CRs selected across the seven cornerstones of safety in the NRC's Reactor Oversight Process (ROP) to determine if site personnel properly identified, characterized, and entered problems into the CAP for evaluation and resolution. The team selected items from functional areas that included chemistry, emergency preparedness, engineering, maintenance, operations, physical security, radiation safety, and oversight programs to ensure that Entergy personnel appropriately addressed problems identified in these functional areas. The team selected a risk-informed sample of CRs that had been issued since the last NRC PI&R inspection conducted in September 2008. Insights from the station's risk analyses were considered to focus the sample selection and plant walkdowns on risk-significant systems and components. The corrective action review was expanded to five years for the emergency diesel generators (EDGs) and the switchgear room heating, ventilation, and air conditioning (HVAC).

The team selected items from various processes at FitzPatrick to verify that they were appropriately considered for entry into the CAP. Specifically, the team reviewed a sample of engineering evaluations, operator workarounds, operability determinations, system health reports, equipment problem lists, work orders (WOs), and issues entered into the Employee Concerns Program (ECP). Plant areas walked down included the control building (including control room), screenwell, EDGs, and reactor building.

The team reviewed CRs to assess whether Entergy personnel adequately evaluated and prioritized identified issues. The CRs reviewed encompassed the full range of

evaluations, including root cause analyses, apparent cause evaluations, and common cause analyses. A sample of CRs that were assigned lower levels of significance which did not include formal cause evaluations were also reviewed by the team to ensure they were appropriately classified. The team's review included the appropriateness of the assigned significance, the scope and depth of the causal analysis, and the timeliness of resolution. The team assessed whether the evaluations identified likely causes for the issues and appropriate corrective actions to address the identified causes. As part of this review, the team interviewed various station personnel to fully understand details within the evaluations, and the proposed and completed corrective actions. The team observed operations focus meetings and condition review group (CRG) meetings in which FitzPatrick personnel reviewed new CRs for prioritization and assignment. Further, the team reviewed equipment operability determinations, reportability assessments, and extent-of-condition reviews for selected CRs to verify these specific reviews adequately addressed equipment operability, reporting of issues to the NRC, and the extent of problems.

The team's review of CRs also focused on the associated corrective actions in order to determine whether the actions addressed the identified causes of the problems. The team reviewed CRs for adverse trends and repetitive problems to determine whether corrective actions were effective in addressing the broader issues. The team reviewed FitzPatrick's timeliness in implementing corrective actions and effectiveness in precluding recurrence for significant conditions adverse to quality. Lastly, the team reviewed CRs associated with NRC non-cited violations (NCVs) and findings since the last PI&R inspection to determine whether FitzPatrick personnel properly evaluated and resolved the issues.

The team compared FitzPatrick's performance to the requirements and standards contained in 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," and Entergy procedure EN-LI-102, "Corrective Action Process." Documents reviewed during this inspection are listed in the Attachment to this report.

#### b. Assessment

#### Effectiveness of Problem Identification

Based on the selected samples reviewed, plant walkdowns, and interviews of site personnel, the team determined that FitzPatrick personnel generally identified problems at a low threshold and entered them into the CAP. For the issues reviewed, the team noted that problems or concerns had been appropriately documented in sufficient detail to understand the issues. The team observed managers and supervisors at CRG meetings appropriately questioning and challenging CRs to ensure clarification of the issues. The team determined that Entergy personnel trended equipment and programmatic issues, and CR descriptions appropriately included references to repeat occurrences of issues. The team concluded that personnel were identifying trends at low levels. The team did not identify significant issues or concerns that had not been appropriately entered into the CAP for evaluation and resolution. Notwithstanding, the team identified some problems during plant walkdowns not identified by Entergy staff.

The issues were determined to be minor. In response to these issues identified by the team, Entergy personnel promptly initiated CRs and/or took immediate action to address the issue. Examples of instances where Entergy personnel had not identified issues include:

• The inspectors identified two degraded Appendix R floor penetration fire seals. The fire seals had cracks and separation or shrinkage between the opening and the seal material (silicone foam). The fire seals (1FH334B03 and 1FH334B04) located between the 'B' EDG switchgear room and the east cable tunnel had cracks that exceeded the acceptance criteria of 1-1/2 inch depth specified in MST-076.11, "Fire Barrier Penetration Functional Integrity Surveillance Test," Revision 18. FitzPatrick personnel immediately declared the seals nonfunctional and established hourly fire rounds for the affected areas. These two seals were repaired under work orders WO-257384 and 257385 and the seals were returned to full functionality. In addition, an Apparent Cause Evaluation was initiated per CR 2010-07935. Engineers determined there was at least 9 inches of the foam fire seal installed and therefore functionality was not affected. These seals were last inspected by FitzPatrick in January 2008 and January 2002 and found acceptable.

The team determined this issue was minor, because, upon evaluation, there was sufficient seal penetration material (9 inches of the foam seal was installed) to perform its required 3 hour fire protection function.

• The inspectors identified equipment in safety-related areas of the plant where Entergy staff did not use the proper restraints designated in AP-17.02, "Housekeeping and Cleanliness Control," for equipment in these safety-related areas. Specifically, the inspectors identified four carts in the control room that were restrained by a loose chain which was inadequate to prevent them from rolling into the adjacent instrument cabinets. Two portable gas cylinder carts, classified as medium weight equipment in AP-17.02, were not sufficiently restrained to prevent them from tipping into the adjacent Reactor Protection System (RPS) instrument cabinets and were not located a minimum of four feet from the cabinets as required in AP-17.02. Two carts in the safety-related relay room adjacent to the control room were not restrained in any manner to prevent them from rolling into safety-related cabinets. A ladder in the 'D' EDG room was also found not properly secured.

Entergy personnel concluded that all cabinets which the loose carts could have impacted were constructed such that they had sufficient strength to prevent any damage to the equipment contained inside the cabinets. The inspectors determined these issues were minor because they could not reasonably conclude that the unrestrained equipment in the safety-related areas would have challenged the ability of safety-related equipment to perform its safety function. Additionally, no significant programmatic concerns were identified associated with the issue that, if uncorrected, could lead to worse conditions. Entergy has taken corrective action to provide adequate restraints for each piece of equipment.

• The inspectors identified a potential seismic concern associated with the EDGs' fuel oil lines and air start lines. Specifically, the inspectors identified ¾ inch, 1 inch and 2 inch nominal diameter piping in direct contact with ¼ inch thick metal floor diamond deck plates as the pipes extend through the floor. The deck plates varied in size and were recessed in the floor trench, flush with the floor surface. Additionally, the diamond plates which are used to cover trenches in the EDG rooms were installed inconsistently, in that some plates were partially secured to the floor but many were not. FitzPatrick personnel initiated CR 2010-7906 to perform extent of condition walkdowns and inspections, and to evaluate the clearance conditions between the plates and the piping.

The engineering evaluation determined this condition would not have prevented the EDGs or associated piping and components from performing their intended safety function because the maximum (peak) seismic accelerations for the EDG building during a design basis earthquake would be minor due to the low seismic accelerations and the ability of the piping to withstand an impact from the plate. Fitzpatrick personnel initiated WOs to cut the diamond deck plates around the pipes to create at least a ½ inch clearance. In addition, where practical, Fitzpatrick plans to secure the deck plates to the supporting frame within the floor trench.

The inspectors concluded that these issues were minor because the conditions did not impact operability of the EDGs or any of the associated support systems or components. No significant programmatic concerns were identified associated with the issue that could lead to worse conditions if uncorrected.

#### Effectiveness of Prioritization and Evaluation of Issues

The team determined that, in general, Entergy personnel appropriately prioritized and evaluated issues commensurate with their safety significance. CRs were screened for operability and reportability, categorized by significance, and assigned to a department for evaluation and resolution. The CR screening process considered human performance issues, equipment issues, radiological safety concerns, repetitiveness and adverse trends. The team observed managers and supervisors at CRG meetings appropriately questioning and challenging CRs to ensure appropriate prioritization.

CRs were categorized for evaluation and resolution commensurate with the significance of the issues. Based on the sample of CRs reviewed, the guidance provided by the Entergy implementing procedures appeared sufficient to ensure consistency in categorization of the issues. Operability and reportability determinations were performed when conditions warranted and the evaluations supported the conclusions. Causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. During this inspection, the team noted that Entergy's root cause analyses were generally thorough, and corrective and preventive actions addressed the identified causes. Additionally, the identified causes were well supported.

However, there was one instance of less than adequate evaluation:

• The inspectors reviewed CR 2008-03534 and its associated corrective actions related to the maintenance department. A lack of procedural guidance for core spray pump to motor alignment acceptance criteria was identified in the CR. The inspectors identified that no corrective action was created to assess the need to update the procedure with acceptance criteria for alignment values. CR 2010-08189 was generated to document the concern. The inspectors determined the issue to be minor because subsequent evaluation determined the actual core spray pump to motor alignment was acceptable.

#### Effectiveness of Corrective Actions

The team concluded that corrective actions for identified deficiencies were timely and adequately implemented. For significant conditions adverse to quality, corrective actions were identified to prevent recurrence. The team concluded that corrective actions to address NRC NCVs and findings since the last PI&R inspection were, in general, timely and effective. There was, however, one example where corrective actions were not implemented:

The inspectors evaluated corrective actions taken in response to NCV 2008006-01, Inadequate Procedure Guidance to Address Spurious Failures of the RCIC and LPCI Systems, which identified that procedure AOP-28, "Operation During Plant Fires." does not identify that the 'A' residual heat removal (RHR) pump is susceptible to fire-induced spurious operation due to the fire damaging the pump start logic circuitry. As such, the AOP did not provide guidance for operators to take action to preclude operating the pump beyond the 10 minute recommended runtime on minimum flow. Corrective actions in CR 2008-01597 included adding a precaution to the procedure regarding the runtime restriction for the RHR pump while operating on minimum flow. However, operations personnel concluded that although the procedure was changed to identify that the 'A' RHR pump may automatically start spuriously during a fire, the procedure had not been changed to alert the operators regarding limiting runtime for the RHR pump on minimum flow. FitzPatrick personnel entered this issue into the CAP. Subsequent analysis determined that the RHR pumps may be run in a minimum flow configuration for up to two hours in a 24 hour period. The inspectors determined this issue to be minor because this was a minor procedural error that had no impact on safety equipment and caused no safety consequences.

#### c. Findings

No findings were identified.

#### .2 Assessment of the Use of Operating Experience

#### a. Inspection Scope

The team selected a sample of CRs associated with the review of industry operating experience (OE) to confirm that Entergy personnel appropriately evaluated the OE information for applicability to FitzPatrick and had taken appropriate actions, when warranted. The team reviewed CR evaluations of OE documents associated with a sample of NRC Generic Letters and Information Notices to ensure that Entergy adequately considered the underlying problems associated with the issues for resolution via their CAP. The team also observed plant activities to determine if industry OE was considered during the performance of routine activities. A list of the documents reviewed is included in the Attachment to this report.

#### b. <u>Assessment</u>

The team determined that Entergy personnel appropriately considered industry OE information for applicability, and used the information for corrective and preventive actions to identify and prevent similar issues when appropriate. The team determined that OE was appropriately applied and lessons learned were generally communicated and incorporated into plant operations.

#### c. Findings

No findings were identified.

#### .3 <u>Assessment of Self-Assessments and Audits</u>

#### a. Inspection Scope

The team reviewed a sample of Quality Assurance (QA) audits, including a review of several of the findings from the most recent audit of the CAP, and a variety of self-assessments focused on various plant programs. These reviews were performed to determine if problems identified through these assessments were entered into the CAP, when appropriate, and whether corrective actions were initiated to address identified deficiencies. The effectiveness of the audits and assessments was evaluated by comparing audit and assessment results against self-revealing and NRC-identified observations made during the inspection. A list of documents reviewed is included in the Attachment to this report.

#### b. Assessment

The team concluded that QA audits and self-assessments were critical, thorough, and effective in identifying issues. The team observed that these audits and self-assessments were completed by personnel knowledgeable in the subject areas and were completed to a sufficient depth to identify issues that were then entered into the

CAP for evaluation. Corrective actions associated with the issues were implemented commensurate with their safety significance.

#### c. Findings

No findings were identified.

#### .4 Assessment of Safety Conscious Work Environment

#### a. Inspection Scope

During interviews with station personnel, the team assessed whether issues exist that may represent challenges to the free flow of information, and to determine whether underlying factors exist that would produce a reluctance to raise nuclear safety concerns at FitzPatrick. Specifically, the team interviewed personnel to determine their willingness to raise safety concerns to their management and/or the NRC. The team also interviewed the station ECP coordinator to determine what actions were implemented to ensure employees were aware of the program and its availability with regard to raising concerns. In addition, inspectors reviewed corrective actions taken by Entergy personnel to address licensee-identified safety culture focus areas identified in both a 2009 station-specific and Entergy fleet-wide nuclear safety culture assessment.

#### b. <u>Assessment</u>

During interviews, plant staff expressed a willingness to use the CAP to identify plant issues and deficiencies, and stated that they were willing to raise safety issues. The team noted that no one interviewed stated that they personally experienced or were aware of a situation in which an individual had been retaliated against for raising a safety issue. All persons interviewed demonstrated an adequate knowledge of the CAP and ECP. Based on these limited interviews, the team concluded that there was no evidence of an unacceptable safety conscious work environment (SCWE) and no significant challenges to the free flow of information.

With regard to the corrective actions taken to address the safety culture results from assessments performed by Entergy staff in 2009, the inspectors determined that Entergy's corrective actions were prioritized consistent with the potential safety significance of the issues, and were of sufficient scope and breath to address licensee identified focus areas. For example, in response to an indication that some station personnel may either not be comfortable initiating CRs or have a complete understanding of the types of issues that should be identified in a CR, training was provided to all station personnel on the importance of initiating CRs and how to use the CR system. As a result, there has been a significant increase in the average number of CRs written monthly and issues are being identified at a lower threshold which allows corrective actions to be initiated. Other actions that have been taken include development and execution of a communications plan to improve station personnel awareness and access to Entergy policies regarding nuclear safety culture. This also

includes discussions of those policies during new employee orientation and periodic staff briefings focusing on the need to stay in process, and stopping and reporting to supervision if a procedure or work order cannot be performed as written. These actions have resulted in an increased level of awareness of Entergy policies by station personnel regarding safety culture, the role of the individual in safety culture, and the various avenues available for raising issues.

#### c. <u>Findings</u>

No findings were identified.

#### 4OA6 Meetings, Including Exit

On December 3, 2010, the team presented the inspection results to Mr. Kevin Bronson, Site Vice President, and to other members of the FitzPatrick staff. The team verified that no proprietary information was documented in the report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

#### SUPPLEMENTAL INFORMATION

#### **KEY POINTS OF CONTACT**

#### Licensee personnel

- K. Bronson, Site Vice President
- C. Adner, Manager, Operations
- J. Barnes, Manager, Training and Development
- A. Brais, Operating Experience Coordinator
- K. Brazeau, Maintenance Rule Coordinator
- C. Brown, Manager, Quality Assurance
- D. Burch, Design Engineering
- B. Burnham, Engineering
- R. Casella, Structural Engineer
- P. Cullinan, Manager, Emergency Preparedness
- R. Denbleyker, Employee Concerns Coordinator
- M. Dooley, Supervisor, System Engineering
- E. Dorman, Senior Licensing Manager
- P. Farsaci, Operations
- B. Finn, Director Nuclear Safety Assurance
- M. Hawes, Licensing Specialist
- H. Hunt, Manager, Corrective Actions and Assessment
- D. Johnson, Manager, System Engineering
- D. Koelbel, Fire Protection System Engineer
- J. LaPlante, Manager, Security Operations
- A. Mahammed, Supervisor, Mechanical Civil Design
- D. Nacamuli, Senior Corrective Action and Assessments Specialist
- C. Nye, Coordinator, Maintenance
- J. Pechacek, Licensing Manager
- M. Reno, Manager, Maintenance
- D. Ruddy, Engineering
- J. Solowski, Radiation Protection Supervisor
- D. Stokes, Fire Protection Engineer
- B. Sullivan, General Manager, Plant Operations
- M. Woodby, Director, Engineering

# LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened and Closed

None

#### LIST OF DOCUMENTS REVIEWED

# **Audits and Self-Assessments**

- QA-3-2009-JAF-1, Quality Assurance Corrective Action Audit Report
- QA-9-2009-JAF-1, Quality Assurance Fire Protection Audit Report
- QA-10-2010-JAF-1, Quality Assurance Maintenance Audit Report
- JAFLO-2008-00064, Snapshot Assessment: Non-CARB Apparent Cause Evaluation Document Quality
- JAFLO-2008-00068, Rework Snapshot Self-Assessment
- JAFLO-2008-00078, Snapshot Assessment: 2008 CAP Corrective Action Closures
- JAFLO-2009-00007, Snapshot Assessment: Self-Assessment Program
- JAFLO-2009-00010, Snapshot Assessment: O&P Evaluation of Recurring Issues (Root Cause Evaluations)
- JAFLO-2009-00032, Snapshot Assessment: 2009 CAP Corrective Action Due Date Extensions
- JAFLO-2009-00037, Fire Protection Program Snapshot Self-Assessment
- JAFLO-2009-00054, Snapshot Assessment: Non-CARB Apparent Cause Evaluation Document Quality
- JAFLO-2009-00088, Corrective Action Program Effectiveness
- JAFLO-2009-00126, Snapshot Assessment: 2010 CAP Corrective Action Closures

#### **Condition Reports**

2005-01901	2005-04859	2005-05060	2006-00329	2006-00623	2006-00987
2006-01087	2006-01170	2006-01459	2006-04461	2006-05047	2007-01372
2007-01439	2007-01592	2007-01593	2007-01595	2007-01596	2007-01858
2007-01944	2007-02108	2007-02150	2007-02161	2007-02328	2007-02392
2007-02506	2007-02720	2007-03570	2007-02937	2007-03212	2008-00206
2008-00294	2008-00317	2008-00605	2008-00781	2008-00941	2008-01006
2008-01008	2008-01098	2008-01126	2008-01444	2008-01555	2008-01597
2008-02193	2008-02238	2008-02420	2008-02526	2008-02538	2008-02865
2008-02869	2008-02870	2008-02930	2008-02465	2008-02997	2008-03035
2008-03037	2008-03059	2008-03143	2008-03146	2008-03193	2008-03198
2008-03231	2008-03513	2008-03534	2008-03618	2008-03668	2008-03775
2008-03796	2008-03916	2008-03403	2008-03453	2008-03543	2008-03668
2008-03750	2008-03781	2008-03805	2008-04035	2008-04140	2008-04225
2008-04235	2008-04331	2008-04403	2008-04466	2008-04502	2008-04548
2008-04583	2008-04657	2009-00014	2009-00172	2009-00212	2009-00229
2009-00284	2009-00350	2009-00358	2009-00381	2009-00382	2009-00384
2009-00387	2009-00387	2009-00426	2009-00440	2009-00508	2009-00677
2009-00706	2009-00768	2009-00838	2009-01021	2009-01053	2009-01063
2009-01070	2009-01109	2009-01112	2009-01165	2009-01182	2009-01219
2009-01322	2009-01398	2009-01439	2009-01499	2009-01534	2009-01630

2009-01636	2009-01762	2009-01837	2009-01847	2009-01948	2009-01978
2009-02011	2009-02091	2009-02096	2009-02111	2009-02113	2009-02245
2009-02274	2009-02275	2009-02365	2009-02397	2009-02403	2009-02475
2009-02514	2009-02547	2009-02638	2009-02647	2009-02696	2009-02850
2009-02960	2009-02965	2009-03055	2009-03074	2009-03077	2009-03250
2009-03354	2009-03394	2009-03399	2009-03572	2009-03649	2009-03693
2009-03714	2009-03759	2009-03833	2009-03852	2009-03964	2009-04111
2009-04174	2009-04317	2009-04412	2009-04483	2009-04495	2009-04551
2010-00040	2010-00122	2010-00124	2010-00145	2010-00170	2010-00202
2010-00209	2010-00310	2010-00315	2010-00316	2010-00322	2010-00353
2010-00354	2010-00355	2010-00356	2010-00357	2010-00358	2010-00359
2010-00360	2010-00387	2010-00388	2010-00389	2010-00390	2010-00391
2010-00392	2010-00483	2010-00671	2010-00693	2010-00713	2010-00825
2010-00835	2010-00871	2010-00985	2010-00986	2010-01059	2010-01300
2010-01382	2010-01417	2010-01419	2010-01595	2010-01767	2010-01928
2010-02004	2010-02056	2010-02203	2010-02289	2010-02436	2010-02475
2010-02519	2010-02547	2010-02593	2010-02959	2010-02960	2010-02961
2010-02962	2010-02980	2010-03174	2010-03393	2010-03525	2010-03589
2010-04102	2010-04354	2010-04520	2010-04592	2010-04618	2010-04660
2010-04746	2010-05193	2010-05299	2010-05329	2010-05723	2010-06331
2010-06407	2010-06430	2010-06541	2010-06543	2010-06544	2010-06572
2010-06600	2010-06719	2010-06730	2010-06735	2010-06745	2010-06774
2010-06847	2010-06910	2010-06929	2009-06930	2010-07074	2010-07124
2010-07181	2010-07768	2010-07883	2010-07890*	2010-07894*	2010-07896*
2010-07906*	2010-07908*	2010-07909*	2010-07916*	2010-07935*	2010-07940*
2010-07942*	2010-07943*	2010-07958*	2010-08086*	2010-08107*	2010-08109*
2010-08147*	2010-08169*	2010-08170*	2010-08189*		

HQN-2010-00067

#### Operating Experience

CR-VTY-2010-3782 Condition reports related to personnel qualification requirements CR-ANO-C-2010-2825 Temporary shielding used on top of dry fuel canister developed a hole where lead pieces came out

OE32217 Hydrogen fire

OE32245 Air allowed to remain in 2C HHSI pump discharge header after maintenance

OE32259 'A' control room chiller tripped due to degraded wire

OE32262 Age related failure of a voltage sensing control relay due to improper classification

OE32268 Spent fuel manipulator crane contacted a pipe due to crane control set-up

CR-PLP-2009-05663 Weaknesses identified in exercises and drills not always tracked

NRC-IN-2010-03-A2-JAF-0001-001 MOV valve stem lubrication

CR-PLP-2010-01725 Potential appearance of unacceptable preconditioning for the EDGs GE-21-SC10-06-A2-JAF-0001-002 HPCI turbine overspeed reset control valve diaphragm failure

<sup>\*</sup>NRC Identified During Inspection

OE30834-A2-JAF-0001-001 EDG fuel oil supply line tubing found to be worn OE10882 Failure of main feed pump mechanical seal CR-GGN-2009-04728-AC Submerged cables

#### **Drawings**

FE-1AP, Power Source 120V AC System, Revision 7

#### Licensee Event Reports (LERs)

- 2008-001-00, Loss of Shutdown Cooling Resulting From Invalid PCIS [Primary Containment Isolation System] Actuation Signal
- 2008-002-00, Reactor Pressure Vessel Recirculation Inlet Nozzle Axial Flaw Indication,
  Discovered Attachment During Refueling Outage, Consistent With Inter-Granular Stress
  Corrosion Cracking
- 2008-003-00, Loss of Emergency Bus and Auto-Start of 'B' EDG(s) Due To Rescheduled Relay Functional Test Without Risk Assessment Review
- 2008-004-00, Loss of Power Instrumentation Inoperable and Technical Specification Required Action Time Exceeded Due to Relay Set Point Drift
- 2009-001-00, Inadequate Engineering Calculation Results in Insufficient Inventory of EDG Fuel Oil Storage Tanks
- 2009-002-00, Subsystem Inoperable in Excess of Technical Specifications Allowed Out-of-Service-Time
- 2009-004-00, Loss of Control Room Envelope Boundary
- 2009-005-00, Safety Relief Valve Setpoints Outside of Allowable Tolerances
- 2009-006-00, Inoperable High Pressure Coolant Injection System
- 2009-007-00, Inoperable Emergency Diesel Generators Due to Degraded voltage Timers
- 2009-008-00, High Pressure Coolant Injection System Inoperable Longer Than Allowed By Technical Specifications
- 2010-001-00, Residual Heat Removal and Core Spray Safety Valves Fail to Meet IST Acceptance Criteria

#### Non-Cited Violations and Findings

- 2008004-01, Failure to Manage Risk During Maintenance Activity Resulted in Loss of Shutdown Cooling
- 2008005-02, Conduct of Relay Test Without Plant Impact Review Resulted in Loss of Emergency

Bus and Shutdown Cooling

- 2008006-01, Inadequate Procedure Guidance to Address Spurious Failures of the RCIC and LPCI Systems
- 2009002-01, Inoperable Control Room Envelope Door
- 2009003-01, High Energy Line Break Door Missing Lower Support
- 2009003-04, Failure Regarding an Adverse EDG Rotor Insulation Performance Trend
- 2009003-05, Inadequate Work Planning for Strain Gauge Resulted in Unplanned Exposure
- 2009004-01, HELB Barrier Doors Left Open and Unattended

2009005-01, Emergency Lighting Performance Demonstration Not in Accordance with 10 CFR 50.65(a)(2)

#### **Procedures**

AOP-28, Operation During Plant Fires, Revision 18

AP-10.09, Outage Risk Assessment, Revision 29

AP-12.15. Time Critical Operator Action Validation, Attachment 1, Revion 0

AP-16.14, Hazrad Barrier Controls, Revision 5

EN-DC-143, System and Component Health Reports, Revision 10

EN-DC-143-01, System Health Report Supplemental Guidance, Revision 01

EN-EC-100, Guidelines for Implementation of the Employee Concerns Program, Revision 4

EN-HU-109, Human Performance Error Reviews, Revision 4

EN-OE-100, Operating Experience Program, Revision 9

EN-LI-102, Corrective Action Process, Revision 15

EN-LI-118, Root Cause Analysis Process, Revision 13

EN-LI-119, Apparent Cause Evaluation Process, Revision 11

EN-MA-101, Fundamentals of Maintenance, Revision 9

EN-MA-101-01, Critical Maintenance Identification and Oversight, Revision 0

EN-MA-123, Identification and Trending of Rework, Revision 2

EN-PL-190, Maintaining a Strong Safety Culture, Revision 1

EN-PL-187, Safety Conscious Work Environment (SCWE) Policy, Revision 0

EN-PL-100, Nuclear Safety and Management Expectations, Revision 0

FPP-3.58, Yard Loop West and South PIV Flush, Revision 0

IS-E-03, Opening And Sealing Of Electrical Penetrations, Attachment 7, Revision 15

MP-059.07, Testing of Relief and/or Safety Valves (IST), Revision. 17

MP-059.69, Masoneilan Plug Valve Maintenance, Revision 07

MP-076.20, Fire Damper Maintenance, Revision 03

MP-093.04, EDG Electrical Preventive Maintenance, Revision 18

MST-071.17, Intake Deicing Heaters Rated Power Surveillance Test, Revision 13

MST-076.11, Fire Barrier Penetration Functional Integrity Surveillance Test, Revision 18

AP-17.02, Houskeeping and Cleanliness Control, Revision 18

OP-13, Residual Heat Removal System, Revision 94

ST-4N, HPCI Quick-Start, Inservice, and Transient Monitoring Test (IST), Revision 59

ST-8Q, Testing Of Emergency Service Water System (IST), Revision 40, completed 11/11/10

ST-76U, Fire System Flow Test, Revision 11

#### **Miscellaneous**

LO-2009-00093	LO-2009-00096	LO-2009-00198	LO-2010-00001
LO-2010-00009	LO-2010-00010	LO-2010-00011	LO-2010-00012
LO-2010-00013	LO-2010-00014	LO-NOE-2009-0334	LO-NOE-2009-0522
WT-2010-00041	WT-2010-00063	WT-2010-00126	

O2C-2009-0014	O2C-2009-0018	O2C-2009-0134	O2C-2009-0167
O2C-2009-0198	O2C-2009-0284	O2C-2010-0001	O2C-2010-0002
O2C-2010-0011	O2C-2010-0014	O2C-2010-0019	O2C-2010-0352

DBD-093. Design Basis Document for the Emergency Diesel Generator (EDG), Revision 11

EC0000012434, Update ITS Bases B 3.7.2 for SR 3.7.2.5 and MST-071.17 Level 2 Acceptance Criteria IAW Manufacturer's Heater Rating, Revision 1

JAF CRG Summary Agenda Report, Meeting Date 11/17/2010

JAF-CALC-06-00114, EDG Ultra Low Sulfur Fuel Oil Calculations, Revision 6

JAF-CALC-09-00005, Acceptance Criteria for Intake De-Icing Heater Power Output Surveillance Test, Revision 0

JAF-RPT-CRC-02299, Maintenance Rule Basis Document for System 070 Control & Relay Room Ventilation System, Revision 5

JAF-RPT-FPS-02496, Maintenance Rule Basis Document for System 076 Fire Protection System, Revision 9

JAF-RPT-FWS-3079. Maintenance Rule Basis Document for System 34 Feedwater, Revision 2 JAF-RPT-MISC-02751, Maintenance Rule Basis Document for System 076 Emergency Lighting, Revision 4

JAF-RPT-RPV-02764, Maintenance Rule Basis Document for System 002-1 Reactor Vessel and Internals, Revision 1

JENG-APL-01-004, Feedwater System Maintenance Rule (a)(1), Revision 10

JENG-APL-09-02, Maintenance Rule (a)(1) Action Plan, System 23, High Pressure Coolant Injection, Revision 0, 8/6/2009

JENG-APL-09-004, Emergency Light Batteries Maintenance Rule (a)(1) Action Plan, Revision 6 JENG-APL-10-002, Maintenance Rule (a)(1) Action Plan System 70 Control Room Ventilation, Revision 0

JENG-APL-10-003, Maintenance Rule (a)(1) Action Plan System 02-1 Reactor Vessel and Internals, Revision 1

LBDCR-Bases-09-002 LO-NOE-2008-00049 LO-WTJAF-2009-00059

Wyle Laboratories Test Report Target Rock 2-stage pilot valve as-received test program for Entergy Nuclear Northeast J/N T56660-0, November 23, 2010

System Health Report, System 76, Fire Protection System, 3<sup>rd</sup> Quarter 2010, Revision 0 System Health Report, System 93, Emergency Diesel Generator, 3<sup>rd</sup> Quarter 2010, Revision 0

WO 00148120 WO 00166605

WO 00169518

WO 00233435

WO-00257384

WO-00257385

WO 51103773 WO 52195884

WR 00220144 WR-00257155

RPS

RWP

WO

SCWE

Technical Requirements Manual, Revision 44

Technical Specification Section 5.4.1, Administrative Controls, Amendment 274
First Quarter 2009, Quarterly Trend Report
Second Quarter 2009, Quarterly Trend Report
Fourth Quarter 2009, Quarterly Trend Report
First Quarter 2010, Quarterly Trend Report
Second Quarter 2010, Quarterly Trend Report

Calculation JAF-CALC-08-00021, R18 FAC Minimum Wall Calculation For Various Systems

Vendor Spec. Tech-Sil Inc. #TS-MS-0009/Dow Corning 3-6548 RTV Foamed In-Place

Silicone Rubber Penetration Seals, Dated October 15, 1976.

#### LIST OF ACRONYMS

Agencywide Documents Access and Management System **ADAMS** Corrective Action Program CAP Code of Federal Regulations CFR Condition Report CR Condition Review Group CRG DRP Division of Reactor Projects **Employee Concerns Program ECP Emergency Diesel Generator EDG** James A. FitzPatrick Nuclear Power Plant FitzPatrick Heating, Ventilation, and Air Conditioning **HVAC** Inspection Manual Chapter IMC Non-Cited Violation NCV **Nuclear Regulatory Commission NRC** Operating Experience OE Publicly Available Records System PARS Problem Identification and Resolution PI&R Quality Assurance QA Residual Heat Removal RHR ROP Reactor Oversight Process

Reactor Protection System

Safety Conscious Work Environment

Radiation Work Permit

Work Order

# Inspection Request FitzPatrick PI&R - IR 20010007

Request #1	Requester: _	Neil Perry	Date:	October 18, 2010	
Requested Information to s					
Conoral					

#### **General**

- 1. A copy of the organization charts, phone list, and list of system engineers.
- 2. List of system numbers/designations and risk-ranking of systems.
- 3. Schedule (date/time/location) of all meetings associated with implementation of the corrective action program (CAP), such as CRC, MRC, CARBs, etc. for the weeks on site.

#### Corrective Actions

- A copy of the procedure(s) related to the identification and resolution of problems initiation, evaluation, and correction. Include procedures for the corrective action process, trending program, quality assurance audit program, self-assessment program, corrective action effectiveness review program, operability evaluations, industry operating experience review program, and procedures related to the Employee Concerns Program (ECP).
- 2. The total number of Condition Reports (CRs) generated per year by significance level from August 2008, and including the first ten months of 2010.
- 3. A chronological list of CRs initiated since August 2008, sorted by significance level. Include a brief description, whether the CR is open or closed and if possible the number of due date extensions. Provide using searchable electronic spreadsheet if possible.
- 4. A separate list of all CRs initiated before the last PI&R (August 2008) inspection **and** that remain open in electronic spreadsheet format if possible include system number/designation, date initiated, significance level, title/short description, date due, and, if possible, the number of due date extensions.
- 5. A copy of the CR and supporting information for each NRC non-cited violation (NCV) and finding (FIN) issued since August 2008 (do not include security items).
- A copy of all apparent cause evaluations, root cause evaluations, and common cause evaluations performed since August 2008. Include the associated operability evaluation, if applicable.
- 7. A copy of each Licensee Event Report issued since August 2008.
- 8. A list of current Maintenance Rule a(1) systems and a list of those systems that entered a(1) since August 2008, but which were returned to a(2) status. Include a copy of the current system health report for those systems now in a(1). Also, include a copy of the maintenance rule procedure.
- 9. A list of open temporary modifications, control room deficiencies, operator workarounds/challenges, and all operability determinations (since August 2008), with corresponding CAP and work order numbers.
- 10. A list of the items in the corrective and elective maintenance backlog, with assigned priority.
- 11. A list of rework and repeat maintenance items and maintenance metrics including the backlog of corrective and elective maintenance issues.
- 12. A summary list of system health coding since August 2008 (including copies of system health reports available onsite).

#### **Audits and Assessments**

- 1. A copy of the CAP trend reports and performance indicators used by management since August 2008.
- 2. A listing of CRs generated as a result of identified trends (either by station or department) since August 2008. Include a brief description of the trend, how identified (internal or external), when identified, and whether the CR is open or closed.
- 3. A copy of nuclear quality assurance audits and departmental self-assessments of the CAP completed since August 2008.
- 4. A chronological list of nuclear quality assurance audits and departmental self-assessments completed for all departments since August 2008, including those performed to assess safety-culture.
- 5. Copies of reports issued by safety review committees (such as PORC, NSRB, etc.) or other management oversight mechanisms since August 2008.

#### Operating Experience

1. A chronological list of operating experience documents (NRC and industry) received since August 2008, and any associated CRs.

#### Safety Conscious Work Environment

1. A list of all safety culture reviews (audits, assessments, surveys, trend reviews, etc.) initiated since August 2008, and a list of any CRs generated as a result of these reviews.

Requested Information to support PI&R Inspection 11/15-12/3/2010 on site:

- 1. A copy of the Quality Assurance manual.
- 2. A copy of the UFSAR, Technical Specifications, including the Bases, and the TRM.
- 3. A set of system prints (P&IDs).
- 4. Access to the site network, CAP and Corrective Action database, and a printer.
- 5. Access to a list of all ECP cases and contacts initiated since August 2008 and a list of CRs generated as a result of these reviews. [Will be reviewed onsite to maintain confidentiality]

You may provide this information in whatever format you prefer. However, feel free to burn this information to a CD if it is more convenient to you. If you have any questions concerning preparations for this inspection, please contact Neil Perry at (610) 337-5225.